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Determinants of Health Worker Motivation in Jordan: A 360 Degree Assessment in Two Hospitals

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- > enhanced organization and management of health care systems and institutions to support specific health sector reforms.*

PHR advances knowledge and methodologies to develop, implement, and monitor health reforms and their impact, and promotes the exchange of information on critical health reform issues.

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The opinions stated in this document are solely those of the author(s) and do not necessarily reflect the views of USAID.

Abstract

This paper represents one of three components of a larger study examining health worker motivation in two hospitals in the Hashemite Kingdom of Jordan. The overall objective of the 360 degree assessment was to begin to identify the major organizational, situational, and individual factors associated with health worker motivation, and to better understand how major constituencies (i.e., managers, supervisors, workers, and patients) perceive the hospital/work environment. Specific objectives of this study component were to:

- > Assess congruence between managers, supervisors, and workers on perceptions of hospital goals;
- > Compare perceptions of hospital and worker characteristics among types of workers (physician, nurse, other) and levels of respondents (managers, supervisors, workers, patients);
- > Identify possible factors for stimulating good performance and possible interventions for enhancing motivation.

The study used a semi-structured interview tool, which was applied to a sample of 125 workers and 85 patients in two hospitals in Jordan, one a large central teaching hospital and the other a small rural community hospital. An additional 54 hospital directors, governorate health directors and central Ministry of Health staff were also interviewed. The instrument adapted items used to investigate work motivation in the U.S. context to the Jordanian context. Respondents answered questions relating to (1) their perceptions of hospital goals, (2) their attitudes towards the hospital environment and culture, (3) their perception of the characteristics of their fellow workers, (4) the possible benefits of different work conditions, and (5) the efficacy of specific interventions to improve motivation. While most questions took a Likert format, qualitative responses were also encouraged, recorded, and analyzed.

Neither of the hospitals had clearly stated organizational goals and consequently respondents were unclear about how their work could contribute to the achievement of hospital goals.

In terms of hospital and worker characteristics, respondents were quite positive about co-worker behaviors (respect, reliability), and positive (if a little less so) about co-worker intrinsic motivation and pride/reputation of the hospital. Questions about management openness and availability of modern equipment elicited more neutral reactions, while those about job/career opportunities and satisfaction with pay drew negative responses. Perceptions held by nursing staff tended to be significantly more negative than those held by physicians or other workers. Management openness was viewed more positively by managers and supervisors than by workers, and there was a non-significant tendency for managers and supervisors to view hospital characteristics more positively than workers, while viewing worker characteristics more negatively.

Patients' perceptions were generally similar to those of workers, and managers from other hospitals and governorates were also similar to those found at the two study hospitals.

The most critical group of factors in stimulating motivation were those related to opportunities for increased salary, increased opportunities of personal achievement (promotion, training, new skills, etc.), and improved working environment. Effective interventions for improving motivation included: better equipment, medical records, and physical environment; fairer policies on pay, promotion, and attendance; and better job definition, more teamwork, and resolution of staff transportation and child care issues.

Table of Contents

Acronyms	vii
Foreword	ix
Acknowledgments	xi
1. Introduction.....	1
1.1 Context of the Study.....	2
1.2 Goals and Objectives of the Study	2
1.3 Location of the Study	2
2. Methodology.....	5
2.1 The 360 Assessment Instrument.....	5
2.2 The Sample	6
2.2.1 Sampling Methodology	6
2.2.1.1 Samples in the Two Hospitals.....	6
2.2.1.2 Sampling in Other Governorates and the Central Ministry of Health	7
2.2.2 Description of the Sample	7
2.3 Scale Development for Hospital and Worker Characteristics.....	7
3. Results	11
3.1 Perceptions of Hospital Goals	11
3.2 Hospital and Worker Characteristics.....	12
3.2.1 Hospital Characteristics.....	12
3.2.2 Worker Characteristics.....	13
3.3 Work Conditions that Stimulate Good Performance	14
3.4 Possible Interventions to Enhance Motivation	15
4. Conclusions	19
4.1 Lack of Clarity on Hospital Goals	19
4.2 Different Types of Hospitals Create Different Working Environments.....	19
4.3 Nurses Have Less Positive Perceptions of the Working Environment.....	19
4.4 Many Possible Avenues for Improving Motivation	20
5. Methodological Lessons Learned in Implementation.....	21
Annex A. Worker Questionnaire.....	23
Annex B. Departments Used as a Basis for Sampling at Al-Ramtha and Al-Basheer Hospitals.....	39
Annex C. Sample of Managers/Directors in Other Governorates and the Central Ministry of Health.....	41
Annex D. Results from Other MOH Staff.....	45

Annex E. Results from Patients	47
Annex F. Results on Factors that Stimulate Good Work by Level of Staff	49
Annex G. Results on Interventions to Enhance Worker Motivation by Level of Staff	51
Annex H. Summary of Qualitative Responses to Interventions to Improve Motivation from Staff at the Two Study Hospitals	53
Annex I. Reference List	67

List of Tables

Table 1. Actual Samples for the 360 Degree Assessment in the Two Study Hospitals	7
Table 2: Item Composition of Composite Hospital and Worker Scales	9
Table 3: Perceptions of Hospital Goals by Level of Respondent.....	11
Table 4. Mean and Standard Deviations for Hospital Characteristics Scales at the Two Study Hospitals	13
Table 5. Means and Standard Deviations for Worker Characteristics Scales	14
Table 6. Factors that Stimulate Motivation to Perform (“do good work”) for Al-Basheer and Al-Ramtha Hospital Staff (rated on a 5 point scale).....	15
Table 7. Mean and sStandard Deviation Scores for Effectiveness of Possible Interventions to Enhance Worker Motivation at Al-Basheer and Al-Ramtha Hospitals	16
Table D-1. Perceptions of Managers at Central Ministry of Health and Non-study Hospitals.....	45
Table E-1. Mean and Standard Deviations for Patient and Worker Responses on Hospital and Worker Characteristics at the Two Study Hospitals	47

Acronyms

CME	Continuing Medical Education
MOH	Ministry of Health
PHR	Partnerships for Health Reform Project (USAID)
USAID	United States Agency for International Development

Foreword

Part of the mission of the Partnerships in Health Reform Project (PHR) is to advance “knowledge and methodologies to develop, implement, and monitor health reforms and their impact.” This goal is addressed not only through PHR’s technical assistance work but also through its Applied Research program, designed to complement and support technical assistance activities. The program comprises Major Applied Research studies and Small Applied Research grants.

The Major Applied Research topics that PHR is pursuing are those in which there is substantial interest on the part of policymakers, but only limited hard empirical evidence to guide policymakers and policy implementors. Currently researchers are investigating six main areas:

- > Analysis of the process of health financing reform
- > The impact of alternative provider payment systems
- > Expanded coverage of priority services through the private sector
- > Equity of health sector revenue generation and allocation patterns
- > Impact of health sector reform on public sector health worker motivation
- > Decentralization: local level priority setting and allocation

Each Major Applied Research Area yields working papers and technical papers. Working papers reflect the first phase of the research process. The papers are varied; they include literature reviews, conceptual papers, single country-case studies, and document reviews. None of the papers is a polished final product; rather, they are intended to further the research process—shedding further light on what seemed to be a promising avenue for research or exploring the literature around a particular issue. While they are written primarily to help guide the research team, they are also likely to be of interest to other researchers, or policymakers interested in particular issues or countries.

Ultimately, the working papers will contribute to more final and thorough pieces of research work, such as multi-country studies and reports presenting methodological developments or policy relevant conclusions. These more polished pieces will be published as technical papers.

All reports will be disseminated by the PHR Resource Center and via the PHR website.

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1. Introduction

Work motivation is defined as the individual's degree of willingness to exert and maintain an effort towards organizational goals (Kanfer 1999). Lack of worker motivation is often cited as a major constraint to health systems performance in developing and middle-income countries, where working conditions, due to economic restructuring or other situations, have often deteriorated. The Partnerships for Health Reform (PHR)¹ has undertaken this topic for exploratory research under its major applied research program. Although extensive research has been done on health worker motivation in the United States, little has been done in developing countries. Thus, the first phase of PHR's research activities in this area focused on the development of a multidisciplinary conceptual framework for examining the determinants of health worker motivation and how health sector reforms in developing countries impact on it.² This framework lays out motivational determinants at several levels:

- > The individual level: values, goals, self-concept, and expectations for consequences of work behavior
- > The work context or organizational level: organizational structure and processes, organizational culture, and human resource management inputs
- > The community health worker interaction level
- > Broad socio-cultural factors

In order to examine these elements, the research methodology was divided into three segments:

1. A contextual analysis, which looks at historical, social, and organizational factors that characterize the general working environment (Gandhour, Qarrain, and Milburn 2000)
2. A 360 degree assessment, which examines perceptions about the specific work environment held by workers themselves, as well as by supervisors, managers and patients
3. An in-depth analysis, which focuses on the individual determinants and outcomes of the worker's motivational process

This report presents the methodology and results from the second segment of this research program, namely, the 360 degree assessment, in which data were collected from workers, supervisors, managers/administrators, and patients at two Jordanian public hospitals, as well as from managers at other public hospitals and at the central Ministry of Health (MOH) headquarters. The main objective of this phase of the research program was to identify similarities and differences in how various health care worker personnel perceive determinants and consequences of motivation in the workplace.

¹ Funded by the United States Agency for International Development, under contract # HRN-C-00-95-00024.

² The conceptual framework is described in detail in Bennett and Franco 1999.

1.1 Context of the Study

Jordan is currently in the process of further developing its health sector and examining possible types of reform to improve health systems performance. This study of health worker motivation contributes to the package of interventions and studies being conducted in Jordan under the auspices of PHR in Jordan. In addition to this health worker motivation study, studies are addressing hospital autonomy, national health accounts, and insurance coverage.

This study was also carried out in conjunction with PHR/Jordan's research capacity-building activities, which has used the health worker motivation study as a field laboratory for Ministry of Health research participants and PHR scholars.³ Research classes and other educational opportunities complemented the field research activities.

1.2 Goals and Objectives of the Study

To date, there has been relatively little research investigating the determinants and consequences of health worker motivation in Jordan. The purpose of the 360 degree assessment was to begin to identify the major organizational, situational, and individual factors associated with health worker motivation, and to better understand how major constituencies (e.g., administrators, managers, workers, patients) perceive the hospital/work environment. Given the paucity of previous work in this area, a semi-structured interview format was used to enable in-depth assessment of constituent goals, perceptions, and expectations.

The specific objectives of this descriptive study were to:

- > Assess congruence between managers, supervisors, and workers on perceptions of hospital goals
- > Compare perceptions of hospital and worker characteristics among types of workers (physician, nurse, other) and levels of respondents (managers, supervisors, workers, patients)
- > Identify possible factors for stimulating good performance and possible interventions for enhancing motivation

The results of the 360 degree assessment were also used in part to shape the data collection instrument for the in-depth analysis of individual determinants and consequences of motivation.

1.3 Location of the Study

Data were collected at two public hospitals in Jordan:

- > Al-Basheer hospital: a very large central and teaching hospital in Amman, with 874 beds and more than 1800 employees

³ The nine MOH research participants were nominated to participate in the health worker motivation data collection and the research classes. They represented nine directorates of the Ministry of Health. The seven PHR scholars are masters students at various Jordanian universities and were selected through a competitive process.

- > Al-Ramtha hospital: a small community hospital in rural northern Jordan, with 56 beds and about 250 employees

These two hospitals were chosen because they represented the range of public hospital settings and circumstances. It was never intended for the results from these two hospitals to be representative of all other hospitals in Jordan. Nor were the results to be used as a comparative rating of these two institutions. Comparisons between hospitals were undertaken for the sole purpose of examining how differences in organizational setting might affect worker motivation.

This report presents, in Section 2, the study methods and a profile of respondents. Section 3 focuses upon the results: perceptions of hospital goals, findings on hospital and worker characteristics, findings regarding which factors might stimulate better performance. Discussion and conclusions from this study component are included in Section 4, while Section 5 presents some methodological lessons learned from implementation.

2. Methodology

2.1 The 360 Assessment Instrument

To assess worker goals, hospital and worker characteristics, and the perceived attractiveness of potential motivational interventions, a semi-structured interview instrument was created based on knowledge of local conditions and prior research in work motivation in the United States. A copy of the instrument used in interviews with health workers is provided in Annex A.

The instrument contained six major sections. In the first section, respondents were asked to provide **demographic and background information** (for example, age, gender, years of experience). In the second section, respondents were asked to describe their **perceptions of hospital goals and objectives** and their views on how the work they performed contributes to these goals. Responses in this section were transcribed and subsequently coded into goal categories following data collection. In the third section, respondents were asked 21 questions pertaining to their **attitudes and opinions regarding the hospital environment and culture**. Respondents responded to each item using a five-point Likert scale format ranging from strongly disagree (1) to strongly agree (5). (Examples of items in this section are “This hospital has a good reputation in the community,” and “My co-workers/peers here feel little commitment to this hospital”). In the fourth section, respondents were asked 21 questions pertaining to their **attitudes and opinions regarding perceived characteristics and values of fellow workers**. Respondents responded to each item using a five-point Likert scale format ranging from strongly disagree (1) to strongly agree (5) (for example, “Overall, my co-workers at this hospital are hard-working”). In the fifth section of the instrument, respondents were asked 13 questions about their **attitudes and opinions regarding the possible benefits of various work conditions**. Respondents responded to each item using a five-point Likert scale format ranging from very important benefit for stimulating good work (1) to least important for stimulating good work (5) (for example, “Chance to learn new skills on the job”). In the sixth and final section, respondents were asked their **attitudes and opinions on possible ways to increase health worker motivation**. Respondents responded to a series of 18 potential organizational changes using a four-point Likert-scale format ranging from ineffective (1) to very effective (4). Examples of items in this section are “Permitting workers to have greater control over their work tasks” and “Increasing the variety of tasks performed in jobs.” For all sections, respondent comments about items or responses were encouraged and recorded.

Three additional versions of the interview instrument described above were developed for use with supervisors, managers, and hospital patients. For supervisor and manager versions, the instruments were identical to the worker instrument in structure and content, with the exception that supervisors were asked to respond with respect to workers in their work units, and managers were asked about hospital employees in general. The instrument administered to patients was a shortened version of the original instrument that deleted sections not relevant to patients. The research team pilot-tested the data collection instruments at Al-Basheer hospital and made minor revisions to the questionnaires.

Interview data in the two hospitals were collected by seven PHR scholars. Nine MOH research participants conducted interviews at MOH directorates and affiliated hospitals in Jordan. Each interview generally took 30-45 minutes to complete. At the end of the interview, all respondents were thanked for their time and assistance.

2.2 The Sample

2.2.1 Sampling Methodology

A primary aim of this study was to provide a rich descriptive database on goals, perceptions, and expectations among major constituencies in the hospital setting. As such, the sampling procedure focused on obtaining data from major levels and groups of hospital employees. In this initial and exploratory research effort, no attempt was made to provide full representation of all hospital workers. A total sample of 264 persons were interviewed; the sample included 125 employees and 85 patients in the two focus hospitals, and 54 managers/directors of MOH directorates and affiliated hospitals in governorates all over Jordan, as well as directorates of MOH headquarters within Amman. These additional managers/directors were added to the sample to provide information on perceptions of those who had authority over the sample hospitals and/or certain aspects of policy affecting hospital management, and to assess whether the managers at the two study hospitals were “representative” of other hospital managers.

2.2.1.1 Samples in the Two Hospitals

For the purpose of this study, managers included hospital directors and assistant directors. Supervisors included department heads and others with supervisory responsibilities. To choose supervisors and workers within the two hospitals, a number of departments were chosen to represent the various basic functions of the hospital: outpatient services, emergency services, inpatient ward care, laboratory/radiology services, and administrative departments. Departments sampled are indicated in Annex B. Within each department, workers and supervisors were randomly selected. Only MOH employees were included (those not on leave of absence), and contract staff were excluded. A convenience sample of patients was selected from those in the department/ward at the time of interviewing.

Three categories of hospital staff were identified:

- > Medical staff: specialists, general practitioners, and residents
- > Nursing staff: nurses, midwives, and assistant nurses
- > Other: allied health professions, administrative workers, and others

The sampling plan called for a total of 20 workers from each of the three groups from each hospital. At Al-Basheer hospital, 60 patients, 20 medical staff, 20 nursing staff, 20 “other” staff, 20 supervisors, and five manager/administrators were to be interviewed. However, at Al-Ramtha, the rural community hospital, these numbers were not possible, as, in some cases, the total number of that type of worker was inferior to 20 or interviewing 20 would leave few cases for further data collection efforts during the in-depth phase. At Al-Ramtha hospital, the intended sample was to include 30 patients, 10 medical staff, 12 nursing staff, 10 “other” staff, eight supervisors, and four manager/administrators. Final samples were slightly smaller, due to absences or changes in staff, and can be seen in Table 1.

Table 1. Actual Samples for the 360 Degree Assessment in the Two Study Hospitals

Category of Sample	Al-Basheer	Al-Ramtha	TOTAL
Patients	60	25	85
Medical staff	20	8	28
Nursing staff	20	12	32
Other staff	20	12	32
Supervisors	20	6	26
Managers/administrators	4	3	7
TOTAL	144	66	210

2.2.1.2 Sampling in Other Governorates and the Central Ministry of Health

The sample focused on employees at the administrative level (managers/directors). As such, the sample included directors of directorates and departments in the MOH headquarters in Amman (31 out of 33). Eleven general health directors at the governorate level and 12 directors of affiliated hospitals were interviewed, representing 11 of Jordan's 14 governorates. Annex C indicates how this sample was distributed.

2.2.2 Description of the Sample

Background and demographic variables collected in the 360 assessment study included age, sex, marital status, and work hospital experience. Across the two hospitals, hospital workers were generally younger (mean = 35 years), and had less work experience (mean = 11 years) than managers (mean age = 50; years experience = 18) and supervisors (mean age = 42; years experience = 18). Eighty-three percent of workers, 92 percent of supervisors, and 100 percent of managers were married. About 35 percent of workers and supervisors were female, while only 14 percent of managers interviewed were female.

In addition to these overall findings, there were significant differences among types of workers. For example, nursing staff interviewed were significantly more likely to be females (59 percent versus 14 percent for physicians and 28 percent for other staff). Nurses were also more likely to have fewer years experience and to be younger than other workers (mean years experience = seven versus 13 years for non-nursing staff; average age = 29 years versus 41 for physicians and 36 for other workers).

The sample of other MOH hospitals and other MOH offices was similar to the manager group at Al-Ramtha and Al-Basheer in terms of age, sex, and years of experience.

2.3 Scale Development for Hospital and Worker Characteristics

Because attributes that characterize hospital and worker characteristics include an array of possible components, factor analysis⁴ was used to develop composite scales which would more reliably reflect these attributes.

⁴ Factor analysis is a statistical method that sorts variables into composite scales (made up of more than one variable), based on correlations between variables.

Item responses to all sections of the interview instrument were quantitatively coded and entered into a combined data file. Reverse-scored items were re-coded and item analyses were undertaken for the purpose of creating multi-item scales in sections three (hospital characteristics/culture) and four (worker characteristics). Principal component factor analysis was used to identify composite item scales that appeared to represent domains of interest. Six composite, unweighted scales were subsequently identified, three related to hospital characteristics/culture and three to worker characteristics. The hospital characteristic scales were: (1) pride/reputation, (2) job opportunities, (3) social environment. Those for worker characteristics were: (1) co-worker respect, (2) perception of peers as hardworking, and (3) perceived co-worker intrinsic motivation. Coefficient alpha reliabilities conducted on the six composite scales showed that the internal consistency reliability for each scale was acceptable. Variables contributing to these scales can be seen in Table 2. Although the generally accepted level of reliability for an alpha value is 0.70, the two scales with alphas below that level were retained because of their logical coherence and the fact that the factor analysis suggested they were important.

In addition, three single items were retained for subsequent analyses because of the particular interest they held. Two items related to hospital characteristics were labeled: (1) management openness to staff suggestions and (2) perceptions of hospital equipment as new/updated. A third item was retained related to worker characteristics: pay satisfaction. Simple arithmetic means were used in the subsequent analyses.

No composite scales were used for sections 5 and 6 of the questionnaire, which focused on attitudes and opinions regarding the possible benefits of various work conditions and on attitudes and opinions on possible ways to increase health worker motivation. These sections are exploratory and uniquely tailored to the local context; no standardized scales exist to measure these conditions and interventions, and information about individual items would indicate areas for further exploration.

All descriptive analyses were conducted by respondent category. Given that the intent of this particular phase of investigation was descriptive in nature, analyses primarily took the form of providing means and standard deviations on the key variables, as well as pertinent demographic variables. However, t-test comparisons, one-way analysis of variance (with post-hoc analysis), and analysis of variance were also conducted on the key variables. The purpose of these comparisons was to identify whether differences existed between the three professional categories or between hospitals on any of the key variables.

Table 2: Item Composition of Composite Hospital and Worker Scales

Composite Scale		Variable Items	Alpha
Hospital Characteristics	Pride/ reputation	Co-workers take pride in providing good service to patients Co-workers do not regard work as boring Hospital has good reputation in community Workers proud to work in this hospital	0.75
	Job/career opportunities	Co-workers have opportunities for formal training and continuing education Co-workers have chances for career advancement Co-workers have opportunities for additional or supplementary payments	0.49
	Social environment	Co-workers get along with other types of workers Hospital demonstrates that it cares about workers Hospital encourages co-workers to work as a team	0.71
Worker Characteristics	Respectful working atmosphere	Co-workers respect their supervisors Co-workers can talk freely with supervisors Co-workers help each other at work Co-workers want respect from other workers	0.76
	Perception of co- workers as reliable	Co-workers are hardworking Co-workers are reliable and dependable Co-workers have less time available than needed to do work	0.55
	Perception that co- workers are intrinsically motivated	Co-workers are less interested in money than the job itself Co-workers are interested in learning and self-improvement Co-workers are eager to do a good job	0.79

3. Results

Results from the 360 degree assessment are presented below in four sections: perceptions of hospital goals, hospital and worker characteristics, factors stimulating good performance, and potential motivation-enhancing interventions. The results below focus on the staff at the two study hospitals. Results for managers/directors from other institutions did not differ much from those of managers and supervisors at the two hospitals, and discussion of their comparisons with results from the two study hospitals can be found in Annex D. The fact that their responses were so similar indicates that results from the two study hospitals may be generalizable to other public sector hospitals in Jordan.

With regard to the data collected from patients, calculation of means for hospital and worker characteristics scales was not possible because not all the items for each of the composite scales were available from the patient questionnaire. Comparison of individual items from the patient data with hospital staff is discussed in Annex E.

3.1 Perceptions of Hospital Goals

One of the key aspects of worker motivation is the congruence or alignment of a worker's goals with those of the organizational goals. Critical to such congruence is understanding of organizational goals and how one's job contributes to these goals. When workers were asked to articulate their perceptions of their hospital's goals, the majority provided responses that did not describe a goal; rather, they listed the functions of the hospital, such as to provide health services, to provide curative care, to provide health education. Supervisors, when asked similar questions, were also mostly unable to articulate a goal as opposed to a function (Table 3). The managers from both hospitals, however, were much better able to articulate goals, citing providing excellent, low cost, or accessible health service to the population.

Table 3: Perceptions of Hospital Goals by Level of Respondent

Level of Staff	Described something to strive for (goal)	Described hospital functions
Workers (n=92):	32%	68%
Medical staff (n=28)	39%	61%
Nursing staff (n=32)	25%	75%
Other staff (n=32)	31%	69%
Supervisors (n=26)	12%	88%
Managers (n=7)	71%	29%

Note: n=125 staff members from Al-Basheer and Al-Ramtha hospitals

Workers at Al-Basheer, the central teaching hospital, were more likely (38 percent) to be able to provide a response that resembled a goal rather than a function than workers at the rural hospital, Al-Ramtha (19 percent).

These data indicate that in terms of vision of hospital goals, supervisors appear to function more like workers than managers do and that although (implicit and explicit) goals for the hospital exist, these are not communicated explicitly to workers and supervisors.

Because most workers described hospital functions, most (70 percent) described their contributions to these “goals” in terms of carrying out their specific tasks and responsibilities. It is unclear whether they see a connection between their job and the overall achievement of hospital goals. The supposition that supervisors may be functioning more like workers than lower levels of management also was reflected in their responses to this question. Although 35 percent responded that their contribution to hospital goals was through their assessment of employee performance and taking action, another 39 percent gave responses related to providing good service to patients and carrying out work tasks and responsibilities.

3.2 Hospital and Worker Characteristics

A series of nine scales (six composite and three single-item) were used to analyze responses to a series of ratings of individual hospital and worker characteristics. These scales represent the mean value of several individual variables coded on a five-point Likert-type rating scale, with a value of 3 being a neutral perception. With a rating scale of this type, scores above 3 indicate a positive work setting, while scores less than 3 indicate a negative work setting. Comparisons of hospital staff managers from other public institutions can be seen in Annex D, while comparisons with patient data can be seen in Annex E.

3.2.1 Hospital Characteristics

Table 4 presents the mean score and standard deviation for each of the hospital characteristic scales by respondent’s group (workers, supervisors, managers), hospital, and type of worker (physician, nurse, other).

With respect to group, respondents reported generally positive perceptions of hospital characteristics; only “job and career opportunities” fell far below a neutral rating. Overall, the mean responses of different respondent groups (i.e., worker, supervisor, and manager) was similar, although workers showed a non-significant tendency to report lower (more negative) responses than supervisors and managers. Only the perception of “management openness” showed a significant difference among the various levels, with workers disagreeing with this characterization of management, while supervisors agreed with the statement, and managers agreed even more strongly that they were open to suggestions from workers. Comments from respondents indicated that some of this unresponsiveness may be due to MOH regulations that are beyond the purview of hospital management.

Comparison of scores by hospital revealed significant differences between the hospitals in reported “pride/reputation,” “social environment,” and “modern equipment.” Not surprisingly, respondents at Al-Basheer (the large central teaching hospital) reported use of more modern equipment than respondents at Al-Ramtha (the small, community hospital). Respondents at Al-Basheer also reported lower levels of pride/reputation and positive social environment than respondents at Al-Ramtha, which may be related to the fact that Al-Ramtha is a community hospital and more intertwined with the local community in terms of staffing.

Comparison of hospital characteristic scale scores by type of worker further indicates significant differences in perceptions of the hospital environment as a function of the type of work performed. Significant differences were obtained on three of the five hospital characteristic scales; pride/reputation, job/career opportunity, and social environment. Physicians perceived job/career opportunities significantly more positively than nurses or other hospital workers. Nurses reported significantly lower levels of pride/reputation and social environment than physicians or other workers. Gender differences were only seen for pride/reputation, with males having higher levels.

Statistical interactions between hospital and type of worker were found for pride/reputation and management openness. Other workers (allied health professionals and service/administrative workers) at Al-Ramtha hospital were most likely to respond positively on pride/reputation, while nursing staff at Al-Ramtha were more likely to have negative perceptions on management openness than others at Al-Ramtha, or at Al-Basheer.

Table 4. Mean and Standard Deviations for Hospital Characteristics Scales at the Two Study Hospitals

	Pride/ reputation	Job/career opportunity	Social environment	Management openness	Modern equipment
Overall (125)	3.50 (.79)	1.81 (.71)	3.38 (1.35)	3.06 (1.35)	3.29 (1.24)
Respondent Group:					
Workers (92)	3.43 (.85)	1.73 (.60)	3.32 (.93)	2.80 (1.30)	3.14 (1.21)
Supervisors (26)	3.59 (.59)	1.92 (.88)	3.49 (.79)	3.68 (1.18)	3.65 (1.23)
Managers (7)	4.06 (.46)	2.48 (1.00)	3.86 (.60)	4.14 (1.46)	3.86 (1.35)
Hospital:					
Al-Basheer (84)	3.39 (.80)	1.88 (.74)	3.21 (.83)	3.00 (1.25)	3.56 (1.11)
Al-Ramtha (41)	3.72 (.76)	1.68 (.61)	3.72 (.92)	3.17 (1.55)	2.73 (1.30)
Type of employee:					
Physicians (45)	3.75 (.68)	2.08 (.73)	3.39 (.86)	3.31 (1.29)	3.47 (1.08)
Nurses (45)	3.09 (.66)	1.67 (.64)	3.13 (.85)	2.77 (1.36)	3.18 (1.34)
Other (35)	3.68 (.92)	1.66 (.67)	3.70 (.92)	3.09 (1.38)	3.20 (.30)

Notes: n=125 hospital employees

Results in **bold** represent significant differences between groups ($P < 0.05$)

Does not include patient or central MOH respondents (see Annex D and E)

3.2.2 Worker Characteristics

Table 5 displays mean scores on composite worker characteristic scales by respondent group (managers, supervisors, workers), hospital, and type of worker (physicians, nurses, other hospital workers). All respondents tended to report generally positive perceptions of hospital workers and uniformly low levels of satisfaction with salary or pay. Examination of perceptions of worker characteristics by hospital reveals a significant difference between Al-Basheer and Al-Ramtha in terms of the extent to which respondents viewed their co-workers as hardworking and reliable. Consistent with differences in workload between the two hospitals, respondents at Al-Basheer reported higher mean scores on this scale than did respondents at Al-Ramtha. Similarly, group differences were also obtained on this scale, with nurses reporting significantly lower levels of co-worker effort and reliability than physicians and other hospital employees. For satisfaction with pay, nurses at Al-Basheer reported less dissatisfaction with pay than nurses at Al-Ramtha, although the opposite was true for physicians and other workers.

Table 5. Means and Standard Deviations for Worker Characteristics Scales

	Respectful working atmosphere	Hardworking, reliable co- workers	Intrinsically motivated co- workers	Satisfied with salary/pay
Overall (125)	3.93 (.73)	3.70 (.75)	3.52 (.95)	1.73 (.97)
Respondent Group:				
Workers (92)	3.90 (.76)	3.77 (.79)	3.57 (.99)	1.70 (.95)
Supervisors (26)	3.94 (.66)	3.53 (.64)	3.33 (.85)	1.81 (1.16)
Managers (7)	4.25 (.35)	3.38 (.49)	3.52 (.77)	1.86 (.38)
Hospital:				
Al-Basheer (84)	3.88 (.68)	3.81 (.64)	3.53 (.92)	1.70 (.92)
Al-Ramtha (41)	4.02 (.82)	3.47 (.90)	3.49 (1.01)	1.78 (1.08)
Type of employee:				
Physicians (45)	3.97 (.66)	3.78 (.62)	3.60 (.82)	1.73 (.89)
Nurses (45)	3.68 (.81)	3.47 (.77)	3.27 (.99)	1.64 (.91)
Other (35)	4.19 (.60)	3.89 (.82)	3.73 (1.00)	1.83 (1.15)

Notes: n=125 hospital employees.

Results in **bold** represent significant differences between groups (P < 0.05)

3.3 Work Conditions that Stimulate Good Performance

One important objective of this study was to identify how important workers perceive various aspects of the work environment to be for stimulating motivation and high levels of job performance. Means and standard deviations for the 13 items in the fifth section of the interview questionnaire are presented in Table 6 by type of factor: management, work conditions, work design, and social environment (Annex F presents these data by type of staff). As shown, respondents rated all items as important to stimulating good work (i.e., mean scores over 4.0), and suggest that many options would be perceived by workers as stimulating good performance. Although not significant, it is noteworthy that respondents tended to rate management factors, such as opportunities for advancement, salary, and chance for training or continuing education, as most important for stimulating good work. Social factors, such as hospital prestige, and work design factors, such as having an exciting place to work, were rated as relatively less important.

Examination of the 13 factors by type of worker (physician, nurse, other) or by level of staff (manager, supervisor, worker) indicated no significant differences, with one exception. For prestige associated with the hospital, other hospital workers (allied health and service/administration workers) rated this factor significantly lower (mean = 3.28) than did physicians (mean = 4.14) and nursing staff (mean = 4.28).

Examination of the 13 factors by hospital also showed only one significant difference in mean scores. Specifically, staff at Al-Ramtha rated working with patients as significantly more stimulating (mean = 4.46) than did staff at Al-Basheer (mean = 4.01; $p < .01$).

Table 6. Factors that Stimulate Motivation to Perform (“do good work”) for Al-Basheer and Al-Ramtha Hospital Staff (rated on a 5 point scale)

Factors that stimulate good work	Five point scale: 5 = very important; 1 = least important
Management:	
Opportunities for advancement	4.77 (0.62)
Salary or other payments	4.78 (0.50)
Chance for training and/or continuing medical education	4.73 (0.64)
Chance to learn new skills	4.62 (0.60)
Good supervision/supervisor	4.65 (0.64)
Working conditions:	
Adequate lighting and ventilation	4.52 (0.69)
Adequate space	4.21 (1.03)
Work design/task-related:	
Working with patients	4.16 (1.06)
Sufficient time available for work	4.09 (0.92)
Exciting, interesting place to work	4.10 (1.25)
Challenging work	4.12 (1.04)
Social environment:	
Stimulating, enjoyable co-workers	4.54 (0.81)
Prestige associated with hospital	4.02 (1.09)

Note: n=125 hospital employees

Qualitative responses provide some additional information about worker perceptions of what stimulates “good performance.” Suggestions included better salaries, financial and moral incentives, more interaction between employees and supervisors, educating the community to have more realistic expectations, more appreciation from the administration, patients and the media, listening to worker complaints, reciprocal respect between supervisors and workers, ensuring enforcement of employee rights, open communication between supervisors and workers, improve hospital maintenance and provision of better equipment.

3.4 Possible Interventions to Enhance Motivation

The final section of the interview questionnaire assessed anticipated effectiveness of 18 different interventions that might be undertaken to enhance worker motivation. Interviewees were asked to rate interventions on a four-point scale, with 1 = not at all effective, 2 = slightly effective, 3 = moderately effective, 4 = very effective. Of the 18 interventions evaluated, only four interventions were rated below 3.00; flexible working hours, more time with supervisors, increasing task variety, and assistance in solving personal problems. Of the remaining 14 items, 11 rated a mean score of 3.50 or higher. There were no significant differences in ratings among workers, supervisors, and managers, but several differences between hospitals emerged. The results, shown by hospital and overall are shown for all staff (workers, supervisors and managers) in Table 7 (Annex G shows means and standard deviations by type of staff).

Table 7. Mean and sStandard Deviation Scores for Effectiveness of Possible Interventions to Enhance Worker Motivation at Al-Basheer and Al-Ramtha Hospitals

Possible interventions to enhance worker motivation	Al-Basheer (n=84)	Al-Ramtha (n=41)	Both hospitals (n=125)	P value
Management issues:				
Fair policies on pay	3.87 (0.51)	3.95 (0.32)	3.89(0.46)	
Fair policies on promotion	3.90 (0.40)	3.84 (0.59)	3.89 (0.47)	
Fair policies on attendance	3.60 (0.75)	3.64 (0.87)	3.61 (0.79)	
Flexible work schedule	3.07 (1.21)	2.74 (1.43)	2.97 (1.28)	
More time with supervisors	3.21 (0.97)	2.45 (1.33)	2.98 (1.15)	***
Working conditions:				
Up-to-date equipment	3.93 (0.26)	3.92 (0.27)	3.93 (0.26)	
Improved physical environment	3.81 (0.65)	3.94 (0.23)	3.85 (0.56)	
Work cesign/task-related:				
Keep more accurate medical records	3.83 (0.49)	3.76 (0.68)	3.81(0.55)	
More opportunities for teamwork	3.57 (0.78)	3.67 (0.79)	3.60 (0.78)	
Better job and task definition	3.54 (0.90)	3.72 (0.76)	3.59 (0.86)	
More emphasis on doing things correctly	3.72 (0.61)	3.07 (1.27)	3.50 (0.94)	***
Permitting greater control over tasks	3.37 (0.88)	3.56 (0.94)	3.43 (0.90)	
Non-financial rewards	3.49 (0.79)	3.12 (1.12)	3.37 (0.93)	*
More emphasis on timeliness of work	3.56 (0.81)	2.97 (1.33)	3.38 (1.03)	**
Increase variety in tasks	2.86 (1.19)	2.64 (1.31)	2.79 (1.23)	
Person-oriented:				
Solve transportation problems	3.67 (0.65)	3.37 (0.99)	3.57 (0.79)	*
Solve child care problems	3.75 (0.66)	3.89 (0.52)	3.79 (0.62)	
Solve personal problems	2.84 (1.03)	3.08 (1.13)	2.92 (1.06)	

Notes: n = 125 employees

1 = not effective, 2 = slightly effective, 3 = moderately effective, 4 = very effective

* P < 0.05; ** P < 0.01; *** P < 0.001

As seen in Table 7, staff at Al-Basheer anticipated more effectiveness of the following interventions than did staff at Al-Ramtha: more emphasis on doing things correctly, more emphasis on timeliness of work, non-financial rewards, solving transportation problems, and more time with supervisors.

Examination of findings by type of worker (physician, nursing staff, and others) revealed significant differences for only two items:

- > More emphasis on doing things correctly. Nurses (mean = 3.0) reported less anticipated effectiveness of this intervention for enhancing work motivation than did physicians (mean = 3.71) and other workers (mean = 3.69; p. < .01).
- > More emphasis on timeliness of work. Again, nurses (mean = 2.91) reported less anticipated effectiveness of this intervention for enhancing work motivation than did physicians (mean = 3.54) or allied health/admin staff (mean = 3.63p = 0.01).

Qualitative responses, which listed suggestions for such interventions, were generally rich. A summary of responses is presented here with more details available in Annex H. With respect to management issues, suggestions included basing salaries and promotions on years of experience, qualifications, and performance (and for physicians, increasing salaries at par with other sectors). Currently, promotions along Civil Service grades are based solely on seniority. Comments on fair policies were most often from nursing staff, in relation to attendance, pay and promotion. For attendance issues, hospital staff frequently cited the need for punching cards or registration books, which would allow equal supervision of attendance for all workers, as well as penalizing careless attendance and rewarding punctuality. Workers also suggested giving them more control over their work schedules.

Suggestions for improvements in the physical environment included improving hospital hygiene, increasing security guards, providing more space, and improving furniture.

In terms of job design, hospital staff frequently mentioned the need for clear and written job descriptions to which workers and supervisors adhere. Hospital staff also commented that facilitating quality work (doing things correctly) could be achieved through good supervision and monitoring, better equipment, better distribution of tasks among workers, and providing capacity-building activities. Providing more control over tasks could be done by decentralizing the administrative functions and having clear job descriptions.

Several non-financial incentives were mentioned: giving priority in training, workshop and educational opportunities (especially mentioned by nurses), expressions of appreciation (“thank you” letters, verbal expressions, certificates of recognition), and extra days off. Being treated with respect was also mentioned by several hospital staff. Suggestions for improving timeliness of work included many things that had already been mentioned for other areas, such as clarifying job descriptions, ensuring availability of equipment, encouraging team work, and giving hospital staff more flexibility in how they do their jobs. However, several suggested providing some incentives to carry out their tasks in a timely manner (mainly allied health professionals, administrative/service workers).

Although increasing job variety was not seen as a highly effective intervention, nurses very frequently mentioned instituting rotations through various departments as a means of job enrichment.

For solving transportation and child care problems, hospital staff suggested provision of these services for all staff who need them.

4. Conclusions

These data on perceptions of various determinants of health worker motivation in two Jordanian hospitals paint a unique picture of the working environment. The following sections highlight some general conclusions from this study.

4.1 Lack of Clarity on Hospital Goals

Worker motivation is a function of an individual's willingness to devote personal resources (time and effort) towards achieving organizational goals. However, respondents in this study were not easily able to articulate hospital goals. It may be difficult for workers and supervisors to conceptualize what the hospital may be trying to achieve. Yet managers were better able to articulate goals, and increased communication about hospital goals and objectives, furthered by written job descriptions that better articulate how individuals contribute to these goals, could improve the congruence of individual work goals and hospital goals. Improving staff understanding of hospital goals so that workers know what the organization is trying to accomplish could also improve perceptions of management openness to worker suggestions.

4.2 Different Types of Hospitals Create Different Working Environments

Perceptions of certain hospital and worker characteristics differed between the large central hospital and the rural community hospital. Some of this variation reflects inherent differences in large organizations versus small organizations that are more connected to their community. This indicates that hospital managers may be able to capitalize on what is strong at their organization to improve worker motivation, or that they should try to mitigate what is weak at their type of organization. For example, it is not surprising that the social environment and pride is higher at the smaller, community hospital: team work is facilitated by the smaller size, and closer links between workers and the patient population can mitigate certain negative patient responses. However, some of these characteristics could be fostered at a larger hospital by creating closer departmental units, and encouraging closer interactions with patients and the larger community.

4.3 Nurses Have Less Positive Perceptions of the Working Environment

Data from this study strongly indicate that hospital employees are not a homogenous group. Nursing staff, in particular, have their own perceptions about the working environment. As a group, nurses were most likely to have a lower or negative view of the hospital and their co-workers. Several other studies of nursing in Jordan have highlighted nursing issues, but this study shows that, in fact, nursing staff are not like other staff and need special consideration to address their issues.

4.4 Many Possible Avenues for Improving Motivation

There are many possible interventions for improving motivation at these two hospitals. Salaries and other types of financial incentives were mentioned by many workers, but also opportunities for promotion, fairer policies, better communication, clearer job descriptions, and generally appreciation for what they do. Research in other countries indicates that while improvements in salaries may decrease dissatisfaction, positive improvements in worker motivation require other types of interventions, such as clear management policies, better job design, and better communication.

5. Methodological Lessons Learned in Implementation

In addition to providing useful results to the two Jordanian hospitals, this study tested the usefulness and reliability of methodologies used in the United States to the Jordanian context. This experience revealed important lessons for others interested in using this methodology in other countries:

- > ***Careful translation is necessary:*** Translation of tested scales and items from American research proved quite difficult in many circumstances, not only because some of the concepts do not translate well into Arabic, but also because many of the items had been phrased in very colloquial English. Many of the items were adapted in English first before translation, and some items were changed during translation and then revised in English afterwards.
- > ***Simplification of scale structures:*** Although the principle investigators proposed a seven-point Likert scale prior to the pre-test, the Jordanian research team felt that no more than a five-point scale could be used reliably in Jordan.
- > ***Overcoming resistance to responding:*** Securing worker collaboration in the study was sometimes difficult, as workers did not always see how this would lead to improvements. Active participation of hospital management was necessary to facilitate study implementation

Annex A. Worker Questionnaire

360 Assessment Interview

Worker/Supervisor Manager Protocol

Introduction:

Thank you for taking time to speak with me today. As you may already know, this brief interview is part of a larger project aimed at identifying the hospital and employee characteristics and procedures that contribute to worker motivation. The ultimate goal of this project is to identify hospital procedures that increase worker motivation, satisfaction and job performance.

The first step in this research is to get an overview of all the factors that affect worker motivation and satisfaction at this hospital. By interviewing persons like yourself, we hope to learn what factors are most important in affecting worker motivation, satisfaction, and performance.

The interview today will only take about 30 minutes. There are no right or wrong answers, just what YOU think and how YOU perceive the current situation. I will be taking notes so that I can accurately code your responses, and I may ask you some follow-up questions occasionally.

All the information you provide in this session will be held in confidentiality. Your responses will be kept by the researchers, we will aggregate responses from all the interviews so that no one individual will be identifiable. The aggregated information we collect from these interviews will be used to: (1) identify strengths and weaknesses in the current system with respect to enhancing worker motivation, and (2) to assist us in the next stage of the project – namely, conducting an in-depth assessment of worker motivation among health care workers in this hospital.

Do you have any questions? (wait for response). OK, let's begin.

Subject number _ _ _

I. Background Information

“Before we get to questions about the hospital and employees, I’d like to get a little background

1. What is your position in the hospital? (title)

2. Gender (*interviewer can mark without asking*)

_____ Male _____ Female

3. How long have you been working for this hospital?

_____ (enter years and months)

4. How long have you been in your current position at this hospitalposition?

_____ (enter years and months)

5. What is your age? _____ years old

6. Do you supervise any health workers? _____ Yes _____ No

If yes, a. what type of workers?

b. how many?

Type?

How many?

II. Goals and Objectives

“This section addresses YOUR perceptions of the hospital’s general goals and objectives. Again, please remember that there are no right or wrong answers – only how you perceive the current

1. “All organizations have goals. A hospital’s goals reflect what the hospital thinks is most important and is seeking to accomplish. may be long-term or short-term, and may be about how the hospital functions, the quantity or quality of services provided, or how patient care is to be delivered. A hospital’s goals are reflected in may ways, including policies, slogans, and informal rules.

Please take a moment and think about what appear to be **THIS HOSPITAL’S GOALS AND OBJECTIVES**. I’d like you to identify what you perceive to be the one or two most important goals of this hospital at the present time. For each goal, we are interested in knowing how the goal relates to YOUR daily work – that is, how much it affects what and how you do your work.”

Use the scale below to have the respondent indicate how important HE/SHE thinks the goal is to the hospital’s performance.

1 2 3 4 5 6 7 8 9 10

Not at all

Extremely Important

Goal 1 (describe): _____

RESPONDENT'S perceived importance of this goal for hospital performance: _____

Describe the ways in which this goal affects your daily work: _____

Use the scale below to have the respondent indicate how important HE/SHE thinks the goal is to the hospital's performance.

1 2 3 4 5 6 7 8 9 10

Not at all

Extremely Important

Goal 2 (describe): _____

RESPONDENT'S perceived importance of this goal: _____

Describe the ways in which this goal affects your daily work: _____

III. Hospital Characteristics/Culture

“The following questions pertain to YOUR view of this hospital, it’s general role and reputation, and it’s various policies and practices. I am going to make a number of statements. For each statement I would like you to use a 1-7 scale (with 1 indicating strong disagreement and 7 indicating strong agreement) to indicate how much YOU agree or disagree with the statement - based on your observations as an employee.

For example, if you disagree with the statement, you might indicate 1, 2, or 3. If you agree with the statement, you might indicate 5, 6, or 7. If you neither disagree or agree, you might indicate 4.

NOTE: for statements refering to “co-workers/peers” respondent should refer to his/her titled group

i.e., doctors if respondent is an MD

 nurses if respondent is a nurse

 ancillary workers if respondent is a ancillary worker (e.g., janitorial, clerical)

Please also feel free to elaborate on your response.

1 2 3 4 5 6 7

Strongly Disagree

Strongly Agree

1. ____ This hospital has a good reputation in the community.

Comments: _____

2. ____ The majority of my co-workers/peers in this hospital are proud to work here.

Comments: _____

3. ____ This hospital encourages my co-workers/peers to think on their own.

Comments: _____

4. ____ This hospital is very behind in getting and using adequate equipment and machines.

Comments: _____

5. ____ In this hospital, suggestions made by my co-workers/peers for how to improve something are usually ignored.

Comments: _____

6. ____ This hospital contributes what it should to the well-being of the community.

Comments: _____

7. ____ This hospital only selects qualified people to work here.

Comments: _____

8. ____ There are few consequences (negative or positive) for doing sloppy work.

Comments: _____

9. ____ Getting a job at this hospital is a source of pride in the family.

Comments: _____

10. ____ Co-workers/peers at this hospital pride themselves in providing good service to patients.

Comments: _____

11. ____ This hospital shows that it cares about my co-workers/peers.

Comments: _____

12. ____ This hospital encourages my co-workers/peers to work as a team.

Comments: _____

13. ____ My co-workers/peers in this hospital do not trust each other.

Comments: _____

14. ____ My co-workers/peers get along well with other types of workers in this hospital.

Comments: _____

15. ____ There are many petty and inefficient rules in this hospital.

Comments: _____

16. ____ My co-workers/peers in this hospital can depend on their supervisor to help them if they encounter a problem while doing their job.

Comments: _____

17. ____ My co-workers/peers here feel a lot of loyalty to this hospital.

Comments: _____

IV. Worker Characteristics/Values

“In this section, we focus on YOUR beliefs and observations about YOUR co-workers/peers (e.g., doctors if respondent is a MD; nurses if respondent is a nurse; ancillary workers if respondent is an ancillary worker). That is, we are interested in what your co-workers/peers are like, their values, and so on. Again, please use the 1-7 scale to respond to each statement. Also, feel free to elaborate on any response.”

1 2 3 4 5 6 7

Strongly Disagree

Strongly Agree

Overall, my co-workers (peers) at this hospital:

1. ____ are eager to do a good job.

Comments: _____

2. ____ are interested more in the money the job provides than the work itself.

Comments: _____

3. ____ are reliable and dependable.

Comments: _____

4. ____ are interested in learning and self-improvement.

Comments: _____

5 ____ want the respect of their coworkers and patients.

Comments: _____

6. ____ work together well.

Comments: _____

7. ____ respect their supervisors.

Comments: _____

8. ____ are hard-working.

Comments: _____

9. ____ help each other at work.

Comments: _____

10. ____ do not like many of the tasks they are required to do.

Comments: _____

11. ____ feel that they cannot quit their jobs, even if they do not like the work.

Comments: _____

12. ____ get frustrated at work.

Comments: _____

13. ____ get blamed for things (by coworkers, supervisors, or managers) that are not their fault.

Comments: _____

14. ____ have less time on the job available than needed to complete their work.

Comments: _____

15.. ____ trust their supervisors.

Comments: _____

16. ____ believe that hospital policies are unfair.

Comments: _____

7. ____ regard their workplace is a pleasant place to be.

Comments: _____

18. ____ often run into obstacles when trying to accomplish their job.

Comments: _____

19. ____ can freely talk with their supervisors about work issues.

Comments: _____

20. ____ are adequately well-paid.

Comments: _____

V. Work Conditions

“This section deals with identifying some of the advantages and disadvantages to your group of workers for working at this hospital. Answer each question with respect to YOUR group of workers (e.g, M.D.’s, nurses, ancillary workers)”

1. “ I am going to read off several possible benefits that your co-workers/peers might perceive for working at this hospital. Please listen and look at the list. For each item on the list, I would like you to indicate how important this benefit is for stimulating your co-workers to do good work. Please identify any other possible benefits that workers might perceive associated with working here.”

1 = MOST important benefit for stimulating good work; 5 = LEAST important

____ Opportunity for career advancement or promotion

Comments:: _____

____ Time available to do work is sufficient

Comments: _____

____ Stimulating and/or enjoyable co-workers

Comments: _____

____ Working with patients

Comments: _____

____ Good supervision/supervisor

Comments: _____

____ Prestige associated with working at this hospital

Comments: _____

____ Chance to learn new skills on the job

Comments: _____

____ Exciting, interesting place to work

Comments: _____

____ Challenging work

Comments: _____

____ Chance to get formal training and/or continuing education

Comments: _____

____ Salary or other payments

Comments: _____

____ Other

Comments: _____

2. "I will now do the same thing as before, but focus on what you see as possible factors that discourage your group of co-workers/peers from doing a good job. Again, please listen and look at the list and then indicate the importance of these discouraging factors. If there are factors that are not listed, please indicate them.

Order: 1 = MOST important discouraging factor for doing good work; 5 = LEAST important discouraging factor.

____ No chance for promotion or career advancement

Comments: _____

____ Time available to do the job is insufficient

Comments: _____

____ Unpleasant co-workers

Comments: _____

____ Working with patients

Comments: _____

____ Poor supervision/supervisor

Comments: _____

____ High personal costs to do job (e.g., travel time; cost for uniforms, etc)

Comments: _____

____ Demoralizing place to work

Comments: _____

____ Boring work

Comments: _____

____ Little opportunity for formal training and/or continuing education

Comments: _____

____ Salary too low and/or no other payment possibilities

Comments: _____

____ Other (specify)

Comments: _____

VI. Ways to increase health worker motivation.

“The following question pertain to potential changes in hospital practices that YOU think would increase health worker motivation among your co-worker/peer group. For each change listed, please indicate:

1. how effective/important you think this change would be in enhancing motivation among your co-worker/peer group (e.g., M.D.’s, nurses, ancillary workers) to do a good job?

2. suggestions for how this could be done or what it should look like.

1. Providing non-financial recognition and rewards for worker accomplishments (e.g., worker of the month program)

How effective do you think this would be? (Mark one)

____ Ineffective ____ Slightly effective ____ Moderately effective ____ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

2. Putting more emphasis on getting things done correctly (emphasis on quality of work)

How effective do you think this would be? (Mark one)

____ Ineffective ____ Slightly effective ____ Moderately effective ____ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

3. Assisting workers in solving transportation problems, childcare, and other personal problems

How effective do you think this would be? (Mark one)

____ Ineffective ____ Slightly effective ____ Moderately effective ____ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

4. Increasing opportunities for teamwork.

How effective do you think this would be? (Mark one)

___ Ineffective ___ Slightly effective ___ Moderately effective ___ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

5. Improving the physical work environment (safer/cleaner/less crowded).

How effective do you think this would be? (Mark one)

___ Ineffective ___ Slightly effective ___ Moderately effective ___ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

6. Putting more emphasis on getting tasks done on time.

How effective do you think this would be? (Mark one)

___ Ineffective ___ Slightly effective ___ Moderately effective ___ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

7. Providing better, more up-to-date equipment.

How effective do you think this would be? (Mark one)

___ Ineffective ___ Slightly effective ___ Moderately effective ___ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

8. Increasing the amount of time the supervisor is available to workers.

How effective do you think this would be? (Mark one)

___ Ineffective ___ Slightly effective ___ Moderately effective ___ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

9. Keeping more accurate medical records.

How effective do you think this would be? (Mark one)

___ Ineffective ___ Slightly effective ___ Moderately effective ___ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

10. Permitting workers to have greater control over their work tasks.

How effective do you think this would be? (Mark one)

___ Ineffective ___ Slightly effective ___ Moderately effective ___ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

11. Providing workers with a better definition of their job and the tasks to perform.

How effective do you think this would be? (Mark one)

___ Ineffective ___ Slightly effective ___ Moderately effective ___ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

12. Increasing the variety of tasks performed in jobs.

How effective do you think this would be? (Mark one)

___ Ineffective ___ Slightly effective ___ Moderately effective ___ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

13. Making policies more fair with respect to attendance, pay, or promotion

(specify).

How effective do you think this would be? (Mark one)

___ Ineffective ___ Slightly effective ___ Moderately effective ___ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

14. Permitting more flexible work schedules/hours

How effective do you think this would be? (Mark one)

___ Ineffective ___ Slightly effective ___ Moderately effective ___ Very effective

[if moderately or very effective] Any ideas on how to do this or what it should look like?

15. Other suggestions for change? (Specify)

VII. Other comments

“Do you have any other comments or suggestions for areas or ideas we should consider in the context of increasing health worker motivation?”

Conclusion of Interview

“Thank you for your time and insights on this area of hospital functioning. Please feel free to contact _____ if you have any further questions about this project.

Scale for Hospital Characteristics/Culture Section (III):

For each statement, indicate the number that best describes your opinion about the statement with respect to your co-workers/peer group.

1 2 3 4 5 6 7

Strongly Disagree

Strongly Agree

Overall, my co-workers (peers) at this hospital _____.

Scale for Worker Characteristics Section (IV):

For each statement, indicate the number that best describes your opinion about the statement with respect to your co-workers/peer group.

1 2 3 4 5 6 7

Strongly agree

Strongly Disagree

Overall, my co-workers (peers) at this hospital _____.

Below is a list of possible BENEFITS/ADVANTAGES that your co-workers/peers might perceive as important to stimulate them to do a good job. PLEASE READ OVER THE LIST. If there are any other possible benefits, please let me know. I will then ask you to rate each benefit listed on a 5 - point scale in terms of it's importance

1 = most stimulating for good performance; 5 = least stimulating for good performance

____ Opportunity for career advancement or promotion

____ Time available to do job is sufficient

____ Stimulating and/or enjoyable co-workers

- _____ Working with patients
- _____ Good supervision/supervisor
- _____ Prestige associated with working at this hospital
- _____ Chance to learn new skills on the job
- _____ Exciting, interesting place to work
- _____ Challenging work
- _____ Chance to get formal training and/or continuing education
- _____ Salary or other payments
- _____ Other

Explain: _____

Below is a list of possible DISCOURAGING FACTORS for doing good work that your co-workers/peers might perceive for working at this hospital. PLEASE READ OVER THE LIST. If there are any other possible benefits, please let me know. I will then ask you to rate each benefit listed on a 5 - point scale in terms of it's importance

1 = most discouraging; 5 = least discouraging).

- _____ No chance for promotion or career advancement
- _____ Time available is insufficient to do the job
- _____ Unpleasant co-workers
- _____ Working with patients
- _____ Poor supervision/supervisor
- _____ High personal costs to do job (e.g., travel time; cost for uniforms, etc)
- _____ Demoralizing place to work
- _____ Boring work
- _____ Little opportunity for formal training and/or continuing education
- _____ Salary too low and/or no other payment possibilities
- _____ Other (specify)

Explain: _____

Annex B. Departments Used as a Basis for Sampling at Al-Ramtha and Al-Basheer Hospitals

Al-Basheer Hospital	Al-Ramtha Hospital
Administration	Administration
Outpatient department	Outpatient department
Emergency department	Emergency department
Pediatrics	Pediatrics
Gynecology/Obstetrics	Gynecology/Obstetrics
Internal medicine	Internal medicine
Ophthalmology	Surgery
Orthopedics	Laboratory
ENT	Radiology
Surgery	Pharmacy
Laboratory	
Radiology	
Pharmacy	

Annex C. Sample of Managers/Directors in Other Governorates and the Central Ministry of Health

INTERVIEWEE	Region	GOVERNORATE/ LOCATION
Consultant to Minister of Health	A	Central Ministry of Health
Consultant to Minister of Health	A	Central Ministry of Health
Director General, Curative Health Services	A	Central Ministry of Health
Director General, Administrative Affairs	A	Central Ministry of Health
Director General, Primary Health Care	A	Central Ministry of Health
Director of Blood Bank	A	Central Ministry of Health
Director of Disease Control	A	Central Ministry of Health
Director of Drugs	A	Central Ministry of Health
Director of Education and Training	A	Central Ministry of Health
Director of Environmental Health	A	Central Ministry of Health
Asstistant Director of Finance & Accounting	A	Central Ministry of Health
Director of General Service, Transportation and Maintenance	A	Central Ministry of Health
Director of Health Education	A	Central Ministry of Health
Director of Information Center	A	Central Ministry of Health
Director of Internal Auditing	A	Central Ministry of Health
Assistant Director of Laboratories	A	Central Ministry of Health
Director of Nutrition and Food Safety	A	Central Ministry of Health
Assistant Director of Nutrition and Food Safety	A	Central Ministry of Health
Director of Personnel Affairs	A	Central Ministry of Health
Director of Planning and Project Management	A	Central Ministry of Health
Director of Public Relations	A	Central Ministry of Health

Director of Purchasing	A	Central Ministry of Health
Director of School Health	A	Central Ministry of Health
Director of Studies and Research	A	Central Ministry of Health
Director of Supplies	A	Central Ministry of Health
Director of Dental	A	Central Ministry of Health
Director of Nursing	A	Central Ministry of Health
Director of Specialized Centers	A	Central Ministry of Health
Head of Department/ Maternity and Child Care	A	Central Ministry of Health
Head of Department/Occupational Health	A	Central Ministry of Health
Head of Quality Development Unit	A	Central Ministry of Health
Director General of Health Governorate	C	Amman Governorate
Director of National Center for Psychiatric Care	C	Amman Governorate
General Health Director	C	Madaba Governorate/Middle
Director of Salt Hospital	C	Salt Governorate/Middle
General Director of Health	C	Zarqa Governorate/Middle
General Director of Prince Fayssal Hospital	C	Zarqa Governorate/Middle
Assistant Director of Zarqa Hospital	C	Zarqa Governorate/Middle
Director of Ajloun Hospital	N	Ajloun Governorate/North
General Health Director	N	Ajloun Governorate/North
Director of Princess Rahma Hospital	N	Irbid Governorate/North
Director of Princess Badi'ah Hospital	N	Irbid Governorate/North
Director of Princess Raya Hospital	N	Irbid Governorate/North
Director of Jerash Hospital	N	Jerash Governorate/North of Jordan
Assistant Health Director	N	Jerash Governorate/North of Jordan
Director of Mafraq Hospital	N	Mafraq Governorate/North
General Health Director	N	Mafraq Governorate/North
General Health Director	S	Aqaba Governorate/South
Director of Ghor Safi Hospital	S	Ghor Safi / South of Jordan

Director of Karak Hospital	S	Karak/ South of Jordan
General Health Director	S	Karak/ South of Jordan
Director of Ma'an Hospital	S	Ma'an Governorate/South
General Health Director	S	Ma'an Governorate/South
Assitant Health Director	S	Tafileh Governorate/South

Note: A = Amman; C = Central Region; N = Northern Region; S = Southern Region

Annex D. Results from Other MOH Staff

Fifty-four Ministry of Health staff at directorate, hospital, and central headquarters were interviewed, in addition to managers at the two study hospitals. Half of the sample (26) was asked about the motivational environment of their own hospital staff or staff in hospitals affiliated with their directorate. The other 28 were asked about the motivational environment of their own staff. Comparisons of ratings of the nine hospital and worker characteristics scales showed no significant differences between these two groups, with the exception of satisfaction with pay, which was more negatively rated by those asked about their own workers in the central MOH.

These respondents, taken as a single group of non-study hospital managers ($n = 54$) were then compared with the combined group of supervisors/managers from the two study hospitals ($n = 33$) for the nine hospital and worker characteristics scales. Few significant differences were detected:

1. “Job or career opportunities” was rated lower ($p = 0.010$) by supervisors/managers at the two study hospitals (mean = 2.04) than managers from other governorate-level hospitals and the central MOH (mean = 2.53)
2. “Social environment” was also rated lower ($p = 0.030$) by supervisors/managers at the study hospitals (mean = 3.57) compared to the other group (mean = 3.91).

Table D-1 shows the perceptions of this sample of managers from the central ministry and other hospitals. For these characteristics, only for management openness were there any differences between central and governorate (directorate and hospital managers) level: MOH managers rated it at an average of 3.65 while governorate-level staff rated it much higher, at 4.56 ($P = 0.001$).

Table D-1. Perceptions of Managers at Central Ministry of Health and Non-study Hospitals

Composite Scale	Mean rating (1-to-5 scale)
Pride/reputation	4.10 (0.85)
Job/career opportunities	2.53 (0.60)
Social environment	3.91 (0.93)
Management openness	4.04 (1.30)
Availability of modern equipment	3.55 (1.21)
Co-worker respect	3.95 (0.76)
Reliable co-workers	3.42 (0.79)
Instinsically motivated co-workers	3.46 (0.99)
Satisfaction with pay	2.08 (0.95)

For the sample of 23 governorate- and hospital-level managers, comparisons were made by region. Only two differences were significant:

- > Availability of modern equipment: northern region, 1.77; central region, 2.77; southern region, 1.43

- > Satisfaction with pay: northern region, 4.00; central region, 4.14; southern region, 3.14

Annex E. Results from Patients

Patients' perceptions about hospital and worker characteristics were also obtained on a restricted number of items (parallel to those on the worker questionnaires). Several items from the worker questionnaire were dropped from the patient questionnaire, because it was felt that patients would not be able to answer them well. However, as the hospital and worker characteristic scales were created post-survey, it turned out that none of the scales could be calculated on the limited number of items available in the patient questionnaire. Although individual items will not have the same reliability as the constructed scales, a comparison on individual items from patient and worker questionnaires is presented here. Of a total of 25 items in the patient questionnaire, only five revealed significant differences between patients and workers, which are shown in Table A5-1 below. Generally, where differences existed, patients tended to perceive things more positively than workers.

Table E-1. Mean and Standard Deviations for Patient and Worker Responses on Hospital and Worker Characteristics at the Two Study Hospitals

Item	Patients (n=84)	Workers (n=92)	P-value
Majority of (co) workers are proud to work here.	3.73 (1.07)	3.13 (1.26)	P = 0.001
This hospital shows it cares about its workers.	3.35 (1.14)	2.92 (1.27)	P = 0.022
(Co) workers help each other at work.	3.45 (1.24)	3.91 (1.01)	P = 0.007
(Co) workers do not get frustrated.	3.25 (1.32)	2.29 (1.14)	P = 0.000
(Co) workers do not get blamed for things that are not their fault.	3.14 (1.17)	2.72 (1.25)	P = 0.021

Comparisons between patients and workers for each of the two hospitals separately revealed some additional significant differences:

At Al-Ramtha:

- > Patients were more likely to rate “the hospital keeps up to date on modern equipment” negatively (mean = 2.04) than workers (mean = 2.88).
- > Patients were more likely to rate “Workers trust their supervisors” negatively (mean = 3.40) than workers (mean = 3.97).

At Al-Basheer:

- > Patients were more likely to rate “Workers help each other at work” negatively (mean = 3.35) than workers (mean = 3.92).

Some analysis of patient data by gender and age revealed some differences in patient perceptions. With regard to hospital reputation, worker commitment, worker eagerness to do a good job, worker reliability/dependability, and respect for supervisors, women patients perceived the situation more positively than men. For all other items, there was no significant difference between the genders. For age, where there were differences, it was the older patients who perceived the situation more positively: hospital reputation, worker pride, hospital contributing to well-being of the community, hospital caring about its workers, and worker eagerness to do a good job. There were no differences between those who knew at least one employee at the hospital and those who knew none. Related to the number of visits made previously, only for whether the equipment was up-to-date was there a significant difference, with those making either no previous visits and those making more than 10 previous visits perceiving the level of equipment more negatively.

Annex F. Results on Factors that Stimulate Good Work by Level of Staff

Factors that stimulate good work	Workers (n=92)	Supervisors (n=26)	Managers (n=7)
Management issues:			
Opportunities for advancement	4.80 (0.50)	4.62 (0.98)	4.86 (0.38)
Salary or other payments	4.78 (1.00)	4.77 (0.65)	4.86 (0.38)
Chance for training and/or CME*	4.71 (0.66)	4.81 (0.63)	4.71 (0.49)
Chance to learn new skills	4.64 (0.57)	4.54 (0.76)	4.71 (0.49)
Good supervision/supervisor	4.63 (0.57)	4.62 (0.90)	5.00 (0.00)
Working conditions:			
Adequate lighting and ventilation	4.55 (0.58)	4.38 (1.02)	4.57 (0.53)
Adequate space	4.11 (1.08)	4.50 (0.86)	4.43 (0.53)
Work design/Task-related:			
Working with patients	4.18 (1.04)	4.04 (1.22)	4.29 (0.76)
Sufficient time available for work	4.14 (0.86)	3.88 (1.18)	4.14 (0.69)
Exciting, interesting place to work	4.11 (1.34)	4.00 (1.06)	4.43 (0.53)
Challenging work	4.09 (1.00)	4.23 (1.21)	4.14 (0.90)
Social intercourse:			
Stimulating, enjoyable co-workers	4.53 (0.73)	4.50 (1.10)	4.71 (0.49)
Prestige associated with hospital	3.89 (1.12)	4.31 (1.01)	4.57 (0.53)

*CME=continuing medical education

Annex G. Results on Interventions to Enhance Worker Motivation by Level of Staff

Possible interventions to enhance worker motivation	Workers (n=92)	Supervisors (n=26)	Managers (n=7)
Management issues:			
Fair policies on pay	3.87 (0.52)	3.96 (0.20)	4.00 (0.00)
Fair policies on promotion	3.86 (0.53)	3.96 (0.20)	4.00 (0.00)
Fair policies on attendance	3.62 (0.77)	3.62 (0.85)	3.50 (0.84)
Flexible work schedule	2.92 (1.31)	3.28 (1.17)	2.20 (1.10)
More time with supervisors	2.92 (1.17)	3.24 (1.05)	2.71 (1.11)
Working conditions:			
Up-to-date equipment	3.96 (0.21)	3.84 (0.37)	3.86 (0.38)
Improved physical environment	3.80 (0.33)	4.00 (0.00)	4.00 (0.00)
Work design/Task-related:			
Keep more accurate medical records	3.41 (0.92)	3.92 (0.28)	3.86(0.38)
More opportunities for teamwork	3.56 (0.83)	3.75 (0.68)	3.57 (0.53)
Better job and task definition	3.51 (0.95)	3.92 (0.27)	3.50 (0.84)
More emphasis on doing things correctly	3.46 (0.99)	3.75 (0.68)	3.29 (0.95)
Permitting greater control over tasks	3.41 (0.92)	3.69 (0.68)	2.60 (1.14)
Non-financial rewards	3.40 (0.89)	3.25 (1.03)	3.29 (1.11)
More emphasis on timeliness of work	3.34 (1.08)	3.52 (0.82)	3.29 (1.11)
Increase variety in tasks	2.63 (1.26)	3.38 (0.94)	2.60 (1.14)
Person-oriented:			
Solve transportation problems	3.49 (0.87)	3.92 (0.28)	3.43 (0.53)
Solve child care problems	3.74 (0.70)	3.92 (0.28)	4.00 (0.00)
Solve personal problems	2.77 (1.10)	3.42 (0.83)	3.00 (0.82)

Annex H. Summary of Qualitative Responses to Interventions to Improve Motivation from Staff at the Two Study Hospitals

WAYS TO INCREASE HEALTH WORKER MOTIVATION

Intervention	Type of Worker	Al-Bashir	Ramtha
A. Providing non-financial recognition and rewards for worker accomplishments			
<u>Suggestions</u> Giving priority in training courses/workshops/educational opportunities.	Directors Physicians Nurses	2 some 8	1
Thank you letters, words of appreciation, certificates of recognition (could be through annual ceremonies of recognition)	Directors Physicians Nurses Supervisors Ancillary Workers	2 11 6 1 NS	4 6 2 7
Extra Days off	Nurses	6	2
Being treated well and with respect	Nurses Supervisor	2	2 1

Intervention	Type of Worker	Al-Bashir	Ramtha
B. Putting more emphasis on getting things done correctly (emphasis on the quality of work)			
<u>Suggestions</u> Good supervision, effective monitoring system, frequent check-ups by supervisors	Directors Nurses Supervisors Ancillary workers	2 2 1 NS	1 1 (Nurse)
Ensure availability of (advanced) equipment	Nurses Physicians	1 5	
Distribute work to all workers, increase cooperation between teams Place workers in the jobs they choose/like Increase the number of workers	Nurses	3 1 1	
Concentrate on one task at a time Encourage better quality of work through incentives related to promotions and priority in training opportunities (increase incentives)	Nurses Physicians	1 5	
Decentralize authority, greater involvement of workers in work plans and providing feedback	Physicians Ancillary workers	NS NS	
Carry out effective workshops and training programs	Nurses Supervisors Physicians Technicians	1	5 5 2
Establish a suitable environment to improve the quality of care	Physicians	NS	
Establish a quality assurance department supervised by qualified personnel Focusing on accuracy of information	Physicians Ancillary workers	NS NS	1 1
A weekly/monthly honor board Implementing all rules and regulations	Director Physicians Technicians Ancillary workers	NS	2 2 3

Intervention	Type of Worker	Al-Bashir	Ramtha
C. Assisting workers in solving transportation problems.			
<u>Suggestions</u>			
Provide transportation and/or increase the number of buses taking workers to and from work (especially those who live outside Amman)	Directors Supervisors Nurses Physicians Ancillary workers Technical Staff	4 1 19 NS Most NS	1 6 12 5 4 1
Compensate workers for transportation (give transportation allowance)	Supervisor (phys.) Nurses Physicians Ancillary workers Technical Staff	 NS NS NS	1 1
Hire employees who live close by	Nurses	2	
Provide accommodation for staff who live very far away	Directors Supervisor (Nurse) Physicians	 NS	1 1
Offering cars free of custom duty and taxes	Physicians		1
Improve the workers financial situation as a whole	Physicians	NS	

Intervention	Type of Worker	Al-Bashir	Ramtha
D. Assisting workers in solving child care problems.			
<u>Suggestions:</u> Allow all workers to have access to nurseries (not only nurses), and workers in all shifts	Directors Nurses (1 supervisor) Physicians Technical staff	4 14 NS NS	
Establish a nursery in the hospital	Directors Nurses Physicians Ancillary workers Technical staff		2 15 7 8 2
Supervise staff working in nurseries	Nurses Physicians	4 NS	
Give mothers one-hour a day for breast-feeding	Nurses Physicians	2 NS	
Provide a nursery in each department	Nurses	1	
Increase the nurseries capacities, increase the number of workers in them and improve their facilities	Nurses	3	
Allow early retirement for female workers upon their request	Physicians	NS	

Intervention	Type of Worker	Al-Bashir	Ramtha
E. Assisting workers in solving their personal problems.			
<u>Suggestions:</u> Employ a counselor	Directors Physicians Nurses Ancillary workers	NS NS (most)	2 1 superv. 2
This cannot be effective since people are reluctant to talk about their personal problems	Directors	2	
Improve the communication between the supervisors and their subordinates (supervisors can help solve problems of workers)	Physicians Nurses Supervisors (admin) Ancillary workers Technical staff	NS	3 7 2 3 1
Solving the financial problems of workers	Nurses Supervisors (admin) Supervisors (Phys.)	 1	2 1

Intervention	Type of Worker	Al-Bashir	Ramtha
F. Increasing Opportunities for team Work			
<u>Suggestions:</u> Encourage team spirit and cooperation between staff members through training and lectures	Directors Nurses Physicians	3 5 NS	4 3
To create understanding and trust among workers	Physicians Nurses	NS	1
To increase the number of workers	Physicians Ancillary workers Nurses	1	4 3
Define/adopt a clear working policy	Ancillary workers Technical Staff	NS NS	
Employ well-oriented supervisors	Technical Staff	NS	
Ensure an even distribution of work	Technical Staff	NS	
Solve and discuss problems as a team	Nurses	3	
Assign tasks to staff and hold them responsible for them	Physicians	NS	
Locate interdependent services within close proximity of each other to improve team work	Physicians	NS	

Intervention	Type of Worker	Al-Bashir	Ramtha
G. Improving the Physical Work Environment			
<u>Suggestions:</u> New modern buildings (rebuild), refurbish existing buildings to become well-equipped, increase building capacity, re-arrange different departments and services in the hospital	Directors Nurses Physicians Ancillary workers Technical staff	2 NS NS NS NS	
Conduct regular maintenance	Directors Technical Staff	2 NS	
Limit the visiting hours Decrease the number of patients per room/ increase the number of rooms Improve the quality of beds Provide more security guards	Nurses Nurses Nurses Nurses	NS NS NS NS	1 6
Improve the hygiene level of the hospital by hiring more cleaning staff and providing more detergents for cleaning, also increasing the supervision on hygiene	Nurses Physicians Technical staff	NS NS NS	6
Provide good lighting in the work place Provide restrooms for visitors Decrease the workload on workers	Nurses Nurses Nurses	NS NS NS	
Adopt modern technology (equipment)	Directors Physicians Nurses Supervisor (admin)	NS 	2 2 2 1
Adopt safety measures	Ancillary worker	NS	
Provide more comfortable furniture and larger work space	Ancillary worker Technical staff		4 2
Provide car parking	Ancillary workers		2

Intervention	Type of Worker	Al-Bashir	Ramtha
VIII. Putting More Emphasis on getting Tasks Done on Time			
<u>Suggestions</u>			
Employ sufficient staff	Nurses Technical staff	4 NS	
Clarify job description, assignments	Physicians Ancillary workers	2 NS	1 1
Ensure availability of equipment	Nurses Ancillary workers	2 NS	
Distribute work among all workers	Nurses	2	
Work with a team spirit, encourage team work	Nurses Supervisors (Phys) Supervisors (admin)		5 2 1
Hire employees in the areas that they choose, place workers in the "right" positions	Nurses Physicians	2 NS	
Define working hours	Nurses Technical staff	2 NS	
Organize work, time and workers	Nurses	1	
Install effective monitoring system with qualified personnel (or supervisors)	Physicians	1	
Define a clear working policy between departments	Nurses Ancillary workers Technical staff	NS NS NS	2
Emphasizing on time might cause stress to the workers thus affecting the "quality" of their work	Physicians	1	
Provide incentives not to postpone work	Director Nurses Ancillary workers Technical staff		1 1 2 1
Provide computers	Supervisor (admin)		1
Allow employees more flexibility in doing their jobs as they see proper	Ancillary workers Technical workers		1 1

Intervention	Type of Worker	Al-Bashir	Ramtha
IX. Providing Better, More Up-to-date equipment			
<u>Suggestions:</u> Create Financial Resources	Directors Nurses Physicians	4 1 NS	
Conduct training workshops for workers to use technically advanced equipment	Nurses Physicians Ancillary workers Technical staff	2 NS NS NS	

Intervention	Type of Worker	Al-Bashir	Ramtha
J. Increasing the amount of time the supervisor is available to workers			
<u>Suggestions:</u> Hold regular meetings with workers aimed at discussing their needs	Directors Physicians Nurses Supervisors Ancillary workers Technical staff	NS NS NS	1 2 5 2 2
Give supervisors less administrative work to do	Technical staff	NS	
Managers should order supervisors to give more time for their workers	Nurses		1

Intervention	Type of Worker	Al-Bashir	Ramtha
K. Keeping More Accurate Medical Records			
<u>Suggestions:</u> Introduce the use of computers for data entry, record keeping and filing	Directors Supervisors (Nurses) Physicians Nurses Ancillary workers Technical Staff	2 1 NS NS NS NS	2 3 4 1 2
Keep records in a safe and secure place	Nurses Supervisors Technical staff Ancillary workers	8	4 3 2 2
Hire special staff to look after records	Directors Supervisors Nurses	3	2 3 1
Label files and papers by using the patients' names	Nurses	2	
Keep thorough, detailed and complete medical records (even the old ones)	Physicians	NS	
Continuous monitoring to ensure quality of information	Physicians Ancillary workers	NS NS	

Intervention	Type of Worker	Al-Bashir	Ramtha
L. Permitting Workers to have Greater Control Over Their Tasks			
<u>Suggestions:</u> Respect workers' views and suggestions	Nurses	1	
Decentralize administration	Nurses Physicians Supervisors Technical staff Ancillary workers	1 NS	2 2 3 1 4
Have clear job description for workers	Nurses Supervisors (Nurse) Ancillary Workers	NS	7 1

Intervention	Type of Worker	Al-Bashir	Ramtha
M. Providing Workers with a Better Definition of their Jobs and Tasks to Perform			
<u>Suggestions:</u> Provide and commit to a clear and written Job Description for all workers (In some cases, job descriptions are available but not adhered to).	Directors Supervisors Physicians Nurses Ancillary Workers Technical Staff	4 NS 6 NS NS	2 5 2 6 3 2
Increasing the number of workers	Nurses	4	
Distribute work among all workers	Nurses	NS	

Intervention	Type of Worker	Al-Bashir	Ramtha
N. Increasing the Variety of Tasks Performed in Jobs			
<u>Suggestions:</u> Change the working place (use rotations in different departments where possible)	Nurses Physicians Technical staff Ancillary workers Supervisors	6 	6 2 2 3 3
Giving different tasks schedules for different periods	Technical Staff	NS	

Intervention	Type of Worker	Al-Bashir	Ramtha
O. Making Policies More Fair with Respect to Attendance			
<u>Suggestions:</u> Provide buses during all shifts	Nurses	4	1
Treating all employees in the same way with respect to their attendance	Nurses	4	
Using punching cards' machines or registration book for attendance (Good supervision on attendance of all workers)	Directors Supervisors Physicians Nurses Ancillary Workers Technical Staff	 NS 1 NS NS	2 1 (nurse) 2 6 4 1
Penalize carelessness in attendance and reward punctuality	Physicians Nurses Supervisors Ancillary workers	NS NS	 4 3
Modify the "Shift" systems (in terms of working hours)	Nurses Supervisors	2	1 2

Intervention	Type of Worker	Al-Bashir	Ramtha
P. Making Policies More Fair with Respect to Pay			
<u>Suggestions:</u> Increase Salaries	Directors Physicians Nurses Supervisor (admin)	4 NS 	 2 1
Determine pay according to working hours (Pay overtime compensation)	Nurses Physicians Ancillary workers	2	 1 2
Base salaries on years of experience, qualifications and efficiency at work	Directors Physicians Nurses Supervisors (Nurse, admin) Technical Staff	 NS 9 NS	2 2 8 2
Add incentives in monetary form to salary based on performance and quality of work (in a fair way)	Physicians Nurses Technical Staff	NS NS	3
Take family conditions into consideration	Ancillary workers		2
Take vocational safety into consideration	Technical staff		1

Intervention	Type of Worker	Al-Bashir	Ramtha
Q. Making Policies More Fair with Respect to Promotions			
<u>Suggestions:</u> Conduct regular performance reviews and base the promotions on it.	Directors Supervisors(Phys, N., 2 admin) Physicians Nurses Technical Staff Ancillary workers Technical staff	1 NS 4 NS NS	1 4 1 2 1
Have a set standard for promotions and a committee to make the decisions (to avoid biased decisions)	Physicians Nurses	NS 4	
Base promotions on the number of years of experience on the job	Directors Physicians Nurses Supervisor (Phys.) Ancillary workers	1	1 1 2 1 2
Base promotions on qualifications and efficiency at work	Physicians Nurses Supervisors (Nurse) Technical Staff Ancillary workers		1 7 1 1 1
Provide opportunities for further education for workers (to enhance promotion opportunities)	Nurses	4	
Update the “Civil Service Law” and apply it in a fair manner	Physicians	NS	

Intervention	Type of Worker	Al-Bashir	Ramtha
R. Permitting More Flexible Work Schedules/ Hours			
<u>Suggestions:</u> Allow workers more control over their work schedule	Physicians Nurses Supervisor (Nurse)	NS 2	6 1
To focus more on completing the job and not the hours	Physicians Ancillary workers		2 1
Have more breaks during working hours	Physicians Ancillary workers	NS NS	

Other Suggestions For Change	Type of Worker	Al-Bashir	Ramtha
Ensure equity for all workers with respect to evaluation, promotion, scholarships and training courses	Physicians	NS	3
Stress the importance of continuing (further) education	Physicians	NS	
Create ties with other hospitals to alleviate the workload on the hospital	Physicians	NS	
Expand other public hospitals to relieve the workload	Physicians	NS	
Improve the current communication system for physicians in the hospital for better efficiency (use of pagers)	Physicians	NS	
Ensure that the management department conducts extensive investigations before it applies disciplinary measures	Physicians	NS	
Improve communication between workers and their supervisors	Ancillary workers	NS	
Provide recreational services for employees	Ancillary workers	NS	
Improve the financial status of employees	Ancillary workers	NS	
Allow workers more freedom of expression	Technical Staff	NS	

Annex I. Bibliography

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